

## APPENDIX

Notes For FOMC Meeting  
December 18, 1990  
Margaret L. Greene

The dollar rose modestly after Thanksgiving, then fell back to end the intermeeting period little changed against the mark from the levels prevailing at your last meeting. Against most other European currencies and the Japanese yen, the dollar is up almost 2 percent on balance.

You may ask why did the dollar not decline inasmuch as the economic and financial news coming out in the United States during the period revealed even more weakness than expected earlier; U.S. interest rates continued to ease; and, when movements in other countries' interest rates are taken into account, interest differentials unfavorable to the dollar widened even more.

I want to explain that the dollar weathered the intermeeting period without more rate movement for what appear to be largely temporary and/or technical reasons. This is a time of year when the market is normally reluctant to take on new risks or to respond fully to changing conditions. Additionally, shifting prospects for peace and war in the Persian Gulf and changing assessments about the availability of short-term financing over the year-end imparted a sense of two-way risk that helped support the dollar. How the markets may respond when these factors change or pass at the start of the new year is most unclear.

Year-end considerations appear to have had a greater impact on market conditions this year than most. These pressures were revealed in a sudden increase in short-term Euro-dollar rates, as well as in dollar exchange rates, during the week or so after Thanksgiving.

Although these pressures appear to have subsided since then, traders remain unusually wary of the possibility that some event--or some miscalculation--could lead to another abrupt movement in rates or to a lack of supply of year-end credit. In these circumstances, market participants have an incentive to avoid becoming short or oversold in their dollar positions. They tend to withdraw from the largely interbank "jobbing" transactions they normally conduct. As a result, exchange rates can more readily be pushed around by the transaction flow of customer business. Market participants, therefore, feel less confident than usual that they can draw meaningful conclusions from the rate movements they observe. This condition prompts traders to be cautious about taking a position in a currency and may help to explain why the dollar's movement against other currencies was not more pronounced in the face of the continuing widening of interest rate differentials against the dollar.

A variety of factors other than the year-end conditions may also have served to support the dollar and mitigate selling pressure during this period.

First is the continued threat of war in the Gulf. At times during the period, hopes of a negotiated settlement were revived. But the threat of war has again intensified in recent days and the uncertainty about what happens after January 15 will either be resolved or redefined soon.

Second is a growing sense that the dollar has fallen to very competitive levels. Assessments of the longer-term potential for the dollar are not powerful enough to cause market participants to buy

dollars, given the interest expense and exposure to a further drop in dollar rates in the short term. But such an assessment does foster caution because it raises the risk that, if the dollar were to firm for some reason, as it did in late November, its upside potential might be considerable and a scramble for dollars may quickly ensue.

Third is the perception of more official support toward the dollar. Recent expressions of concern about a further fall of the dollar by officials both here and abroad--particularly public comments from both the Federal Reserve and Treasury--left an impression that action might be taken to resist any further dollar decline. U.S. attitudes on this subject carry greater weight now that the public is aware that the United States holds in its own name large balances of foreign currencies freely usable for intervention. Market sensitivity to the possibility of official action has intensified since talk spread that the G-7 would meet in January.

Fourth is the observation that the United States is not alone in some of the financial problems that trouble market participants. At least against the Japanese yen, the dollar has been somewhat shielded from news about the condition of U.S. institutions by deepening concern over declining Japanese real estate prices, corporate insolvencies and the condition of Japanese banks.

Finally is the confidence the market has felt up to now in the approach the Federal Reserve has taken to respond to credit conditions and a faltering economy. The monetary moves that have already occurred were largely anticipated at the time. They were seen as consistent with the measured and balanced response that the Federal

Reserve has been showing for several months. And they have not given market participants cause to believe that the central bank has altered its concerns about inflation or the exchange rate.

Looking ahead, some of the factors contributing to the dollar's recent stability could quickly be stripped away. The year-end pressures are of course temporary. The fears of war in the Gulf or fears of a convincing G-7 effort to support the dollar could both dissipate rapidly some time in January. At the same time, mounting evidence of the weak U.S. economic fundamentals may cause some market participants to reassess their view of how much further U.S. interest rates are likely to decline. In addition, the perceived likelihood of further monetary tightening abroad remains high, particularly in Germany. Thus, we are at a rather delicate point: assessments of market sentiment are difficult to make, and the conditions supportive to the dollar that we have experienced recently are likely to change importantly in the coming weeks.

Since the last FOMC meeting the Desk has not intervened in the foreign exchange market.

During the intermeeting period, agreement has been reached for renewing all of the reciprocal swap lines with foreign central banks and the BIS under the previously existing terms and conditions.

In other operations, Honduras made final repayments on its multilateral facility with the ESF. The expiration of this facility on November 30 left the ESF with no outstanding special swap arrangements.

Notes for FOMC Meeting  
Washington, D.C.  
December 18, 1990  
Peter D. Sternlight

Domestic Desk operations since the last meeting were conducted against a background of weakness in the economy and money measures, concerns about year-end pressures, and fitful apprehension about the Middle East situation. Operations were complicated by particular uncertainties about bank reserve management as lower reserve requirements are phased in--a factor that looms large in the days and weeks ahead.

Intended reserve pressures were relaxed in two steps over the period. The first, designed to be associated with a reduction in typical Federal funds rates from around 7 3/4 to 7 1/2 percent, was initiated right after the last meeting. However, it took a few days to get the message across clearly to the market because of "interference" first from pressures at the end of the November 14 maintenance period, and then from pressures related to the November 15 Treasury financing settlement. Funds gradually worked down over the balance of November. While market participants were by then clearly aware of our intentions, daily trading averages were more often above than below the 7 1/2 percent central point because of generally cautious reserve management and a tendency for foreign banks, especially Japanese, to pay up in the market.

Going into early December, and especially after the Board's December 4 announcement of a prospective cut in reserve requirements and a succession of fairly generous reserve provisions, the funds rate tended to drift below 7 1/2 percent. In this setting, it was easy to communicate a second easing step, taken on December 7 in the wake of the very weak employment numbers reported that morning as well as a background of subdued money growth. Market participants grasped quickly that funds could now be expected to trade around 7 1/4 percent.

Intermixed with the reductions in the borrowing allowance associated with these modest easing moves, there were also several technical moves to reduce that allowance in line with lower seasonal use of the window. In all, the borrowing allowance was pared from \$300 million at the time of the last meeting to \$100 million currently, with \$50 million of the reduction associated with the easing steps and the rest done to keep pace with the shrinking use of the seasonal facility. Adjustment borrowing was minimal on most days--often in a \$5-to-\$25 million range--reflecting a combination of bank reluctance to borrow and Desk efforts to head off pressures.

For about the first half of the period, the Desk met seasonal reserve needs through a combination of outright purchases and short-term repurchase agreements. Outright purchases totaled about \$3.3 billion, including \$2.9 billion of bills bought in the market while the balance was bills and notes bought from foreign accounts. The outright purchases were held below what they might have been otherwise, in view of the anticipated reduction in

reserve requirements. Once that step had been taken, the Desk began to reduce outright holdings through auction run-offs and sales to foreign accounts, even while continuing at times to provide temporary reserves through repurchase agreements. The auction run-offs of bills totaled \$2 billion while sales of notes and bills to foreign accounts approached \$1 billion. Matched sale-purchase transactions were employed a couple of times to register dissatisfaction with a sinking funds rate that might otherwise have misled the market into thinking that we were easing more aggressively than was intended. Later in the period, after the phase-down of reserve requirements had begun, matched sales were arranged again to absorb part of the released reserves.

The complications of reserve management in the recent period may pale in comparison to the challenge in the upcoming period, as we face the year-end, the continuing phase-in of lower reserve requirements and after year-end a large seasonal reduction in reserve needs. A major question as we move through this period will be the behavior of banks in response to reduced reserve requirements. Many more banks will find their requirements met through vault cash, but they may be reluctant to cut their balances at the Fed too much lest they risk incurring overdrafts. Thus we anticipate increases, possibly substantial ones, in excess reserves and greater use of required clearing balances as well. Excess reserves could be especially large in a transitional period, while larger required clearing balances may develop over the passage of time. This means that we will want to exercise considerable caution in absorbing the large releases of reserves projected for

the weeks ahead. (Nevertheless, as I'll mention later, we would like to have the flexibility of a large increase in the intermeeting leeway to change outright holdings.)

With particular respect to Desk operations as year-end approaches, I should note that we've been monitoring market developments closely and have given some thought to possible special actions that we might want to take if it appeared necessary to relieve unusual liquidity knots. So far, it does not look as though this would be necessary, but we keep watching.

Market interest rates underwent a broad decline over the intermeeting period, spurred mainly by the sense that the economy is weak, very likely in a recession, and that the Fed is responding with a gradually more accommodative posture. The November employment report was seen as particularly decisive. The ebb and flow of tensions over the Middle East continued to affect rates day-to-day, with a move on balance to perhaps a bit more optimism that war could be avoided--at least if judged by oil prices which came off about \$6 dollars over the interval. The bond markets were also encouraged by the slow growth of money and by some indications of slowing inflation pressures, although a disappointing producer price index last Friday dealt a setback to the fixed income markets. In the main, though, inflationary forces were seen as waning, restrained by weakness in the real economy and slow growth of money. Against this background, the System's perceived easing steps, which were regarded as moderate and appropriate, carried through to the longer maturities as well--unlike some past occasions when market participants seemed concerned that monetary

policy relaxation might denote a weakening in the Fed's anti-inflationary resolve. The reserve requirement reduction, while initially thought by some to constitute a significant easing move in and of itself, was subsequently seen more as an accommodative complement to other easing steps which could give some encouragement to flagging bank credit growth and profitability.

Just a few days ago, I would have said that the market is predominantly of the view that policy will be eased again by year-end, probably with action on the discount rate as well as through open market operations. After last Friday's price number and a bit stronger than expected retail sales, the conviction about a very near-term move seems to have ebbed a bit. A further easing is anticipated by most, but some would place it some time after year-end. Similarly with the discount rate--a reduction is looked for in the fairly near term, but the sense of imminent action has diminished a little.

On balance, yields on long term Treasury issues declined about 45 basis points over the period, leaving the long bond at about 8.17 percent. At one point, a few days ago, that yield was down to about 8.05 percent. The Treasury raised a relatively moderate \$12 billion through 2 and 5 year coupon issues during the period, although it also announced that it would be switching from quarterly to monthly issuance of 5-year notes while eliminating the quarterly 4-year note--a set of moves that was seen as shifting more of the financing burden away from bills and into intermediate coupons.

Meantime, bill rates came off by about 20-30 basis points, with the 3- and 6-month issues selling yesterday at averages of about 6.78 and 6.77 percent, compared with 7.05 and 7.02 percent just before the last meeting. The Treasury raised about \$15 billion in this sector.

Rates on 2 to 6-month private instruments such as commercial paper and bank CDs came down about similarly to Treasury bills--by some 15-35 basis points. One-month paper was something of a special case, first rising sharply in rate when it came to include year-end, then receding for a time but most recently rising again to show a net increase for the period. Rates for one-month paper and quotes for financing over just the year-end itself, hit a peak around the end of November, when there was reported to be an exceptional surge in demand from Japanese banks. Some of these institutions were said to have arranged two-day funding for December 31 to January 2 at annual rates in the 20-30 percent range. These pressures began to fade at the beginning of December and fell away further after the Board's announcement of a reserve requirement reduction which was seen as well timed to deal with year-end pressures. Possibly the very fact of our stepped-up monitoring of the year-end situation also had an ameliatory effect in demonstrating that the central bank had some concerns on this score. However, in the last few days we have heard of some upturn in demands and in rates for year-end accommodation, though not with the same urgency as a few weeks ago.

Turning back to the longer-term markets for a moment, there was a substantial pick-up in corporate issuance in the last few weeks--somewhat belying the notion of "credit crunch"--though to be sure some of the proceeds went to pay down commercial paper which in some instances was less welcome to investors. The heavy issuance was all of investment grade, though some was in the lower ranks of that grade, and it came largely in response to the declines in intermediate and longer yields. With this heavy supply, yield spreads of many investment grade corporates over Treasuries widened somewhat. At the same time, though, secondary market spreads on the bonds of some major money center bank holding companies narrowed somewhat after their sharp widening of recent months.

Finally, on a housekeeping note, the Desk just began a trading relationship with Swiss Bank Corp. Government Securities, a dealer that was added to the primary dealer list last March. In addition, following the Federal Reserve's recent conclusion that the German government securities market now meets the standards for comparable access by U.S. firms, we have added Deutsche Bank Government Securities to the primary dealer list. That brings the number on the list back up to 41, of which 16 are foreign owned.

## Leeway

During the upcoming intermeeting period, the Desk faces an uncertain but potentially very large need to drain reserves as the balance of the reduction in reserve requirements is phased in, followed by seasonal reductions in currency in circulation and required reserves. Tentative reserve projections suggest a drain need potentially approaching \$18 billion by early February, but some of this could be met through matched sale-purchase transactions would not count against leeway. Weighing the uncertainties and bearing in mind also what might be a maximum reasonable amount of outright reduction to undertake in this period, I would like to request a temporary increase in leeway to \$14 billion--that is, \$6 billion above the current standard amount.

Michael J. Prell  
December 18, 1990

**FOMC BRIEFING -- ECONOMIC OUTLOOK**

As you know, a number of economic data have been published since the Greenbook went to press. Ted will say a few words about this morning's trade figures; I shall be happy to address, as best I can, any questions you may have on the other data, but, to save time, let me say now simply that nothing has come out since last Wednesday that would seem to alter the overall picture fundamentally.

Where that leaves us, then, is with a projection of a relatively mild and brief recession, followed by an economic upswing that is quite sluggish by historical standards. Basically, the pattern is much the same as we discussed last month, so it is at the risk of exaggerating their importance that I'll note some of the changes we've made to our forecast.

First, we have steepened the decline in real GNP in the current quarter from 2 percent, at an annual rate, to 3 percent. A good part of the added weakness has its roots in the auto industry, where the Big 3 firms have slashed production even more than we had expected, in order to avert any inventory accumulation. We're seeing some of the same anticipatory behavior in other sectors, too, as firms have responded to concerns about the prospects for demand. This, of course, has the immediate negative effect of destroying jobs and income. But, given our assessment of spending behavior, it also enhances the likelihood of avoiding an inventory build-up that might prolong the recession.

This brings me to the good news of the intermeeting period, insofar as the prospects for an upturn in final demand are concerned. At the top of the list is the decline in oil prices, which has progressed several dollars further at this point than we previously had assumed. If the lower level is sustained, it will mean that less consumer purchasing power will be drained off in early 1991.

Also bolstering prospects for domestic spending is the recent decline in interest rates. The change relative to our prior assumption is not very large, but it isn't insignificant, either.

With inventories looking leaner, and with oil prices and interest rates lower, we have forecast a somewhat stronger upturn in activity in the first half of the year and a bit lower unemployment rate thereafter than in the November Greenbook.

Continuing with the good news theme, I can note next that the projected lower unemployment rate comes at no inflationary cost, relative to our last forecast. The faster retreat of oil prices is one factor here, but also important is our interpretation of the incoming information on labor costs.

We are skating on thin statistical ice at this point, but the flatness of average hourly earnings for production workers in the past two months adds weight to the other indications that wage inflation already may have crested. Consequently, we've lowered our estimate of the current rate of compensation increases by about a quarter of a percent. It could well be that the surprising number of people who have chosen not to participate in the labor force are, in effect, in a state of quasi-unemployment and their readiness to work if the opportunity

presents itself may be helping to damp pay increases. Or, with profits down and such a pervasive anticipation of hard times ahead, we might simply be getting a more forward-looking adjustment of wages. This may be muting the pass-through of the substantial rise in the cost of living that has occurred this year.

In any event, the combination of lower near-term oil prices and greater optimism about wage pressures has led to our projection that it will be possible to achieve as much or more price disinflation over the next two years with a slightly lower jobless rate. In truth, however, as I suggested earlier, this really is an awfully fine reading of the changes in the forecast, and our projection at bottom still hinges on the notion that, unless there is a further increase in slack in the labor market, progress toward lower inflation is likely to be, at most, marginal.

Perhaps the other key point conveyed by our projection is the judgment that, unless oil prices turn back up markedly or there are other unhappy shocks, this recession should not be severe and an upturn in activity can occur before very long at current levels of interest rates.

Obviously, in making that assertion, I am cutting through a lot of serious uncertainties. I am, among other things, making some assumptions about the significance of the credit crunch. This phenomenon has many dimensions, some of which are familiar business cycle patterns and some of which have other origins and are likely to have more lasting significance for financial behavior and economic activity. We still are not in a position to quantify the overall

economic effects, but we believe we've included in our projection an allowance for some further relative tightening of the cost and availability of credit to private borrowers in the coming year--in a degree admittedly well short of what a good many stories would suggest is in store, but nonetheless appreciable. However, it is our assumption that, as the economy reestablishes some forward momentum, as troubled financial institutions make some progress toward repairing their capital ratios, and as the current adjustment of real estate valuations progresses under the influence of a reduced new supply, the credit market tightness will begin to diminish--quite possibly in 1992. Perhaps more germane to the immediate outlook, however, it is our judgment that the financial tensions confronting us are only one part of the explanation of how we got into this recession, and we don't think they are an overriding impediment to our getting out of it--at least in the modest way we've projected.

E. M. Truman  
December 18, 1990

FOMC Presentation -- International Developments

Before saying a few words about the data on U. S. merchandise trade in October that were released this morning, I thought it would be useful to consider briefly two of the fundamental longer-term influences on our outlook.

One factor tending to support exports and restrain imports in our forecast clearly is the foreign exchange value of the dollar. It has depreciated almost 15 percent on average over the past year in terms of the other G-10 currencies, with much of that decline coming since mid-year. While the dollar has been reasonably stable in recent weeks, as Gretchen's report highlighted, we cannot rule out the possibility of a further decline after the new year even with no further change in dollar interest rates. Alternatively, U.S. goods and services are widely perceived as being very competitive at current exchange rates, and this factor, possibly along with the potential threat of official intervention, has tended to support the dollar. In our forecast, we have maintained our projection that the dollar will be essentially unchanged on average in terms of the other G-10 currencies around its recent lows.

In the event of additional Federal Reserve ease, we would expect the dollar to decline. The risk of a precipitous decline in the dollar might be reduced if any Federal Reserve action were seen as only a further cautious response to emerging evidence of additional weakness in the economy rather than as an

attempt to stimulate demand aggressively. However, to reinforce a point in Mike's comments, the fundamental risk associated with a further substantial decline in the dollar, especially one induced by Federal Reserve ease, is that the resulting recovery of aggregate demand might be so strong that little additional slack would be opened up in the economy and limited progress would be made in lowering inflation.

While the lower dollar will boost U.S. exports, a factor tending to weaken the outlook for exports is the actual and projected slowdown in economic activity abroad. Over the past six months, we have lowered our projection for the level of economic activity in the other G-10 countries. At the end of 1991, economic activity is now projected to be about 1-1/2 percent lower weighted by shares of U.S. nonagricultural exports. [FOR THE READER'S INFORMATION: The overall decline in the Q4-1991 level since June is 2-1/4 percent, but 3/4 percentage points has been due to a weaker than expected first half of 1990.] Part of this reduction reflects the influence of higher oil prices on the world economy, but our assessment of underlying growth prospects has also changed. Growth trends abroad have become increasingly divergent in recent months. First, Canada and the United Kingdom are clearly going through policy-induced recessions, aggravated by the effects of higher oil prices. At the other extreme are Germany and Japan, where economic growth remains very strong and prospects are good, though growth is projected to slow in Japan. In between, are the other European countries, where growth is slowing partly because these

countries' currencies have been pulled up versus the non-EMS currencies by the DM's appreciation.

We see two risks associated with this combination of developments and prospects. One risk is that we have underestimated the cumulative downward influence on the economies of our trading partners of negative growth in the United States, Canada and the United Kingdom and slower growth in much of Europe; this would have negative feedback effects on the outlook for our exports. A second risk is the possibility that a stronger DM, which might be induced by greater-than-expected growth or monetary restraint in Germany, will lead the other European countries to tighten their monetary policies. If as a result there were lower growth in Europe, it would have an adverse effect on our exports that could offset the positive influence of the associated decline in the dollar. This appears to be a principal preoccupation of the U.S. Treasury.

In our outlook, we anticipate that merchandise exports will be a positive influence. However, the projected rate of growth of real nonagricultural exports this quarter and next is not expected to be earthshaking, and the subsequent expansion of exports is not expected to reach the rapid rates experienced in 1988 and 1989. Meanwhile, real non-oil imports should begin to pick up with the recovery of the economy, but the pace of expansion should be quite moderate over the next year or so because of the lower dollar. As a consequence, real exports of goods and services are projected to expand more rapidly than imports. The current account deficit is projected to narrow to

about \$50 billion by 1992, assuming that the average price of our imports of petroleum and products stabilizes at around \$23 per barrel.

In the near term, our outlook as usual is influenced by special considerations. First, available data suggest a sharp reduction in the volume of our imports of petroleum and products this quarter. Second, the contraction in the U.S. economy should pull down non-oil imports in the current quarter, though in nominal terms higher prices should partially offset the lower volumes. Third, there have been sizeable cash transfers to the United States in the current quarter in connection with Operation Desert Shield. The first two factors -- a lower quantity of oil imports and the influence of the recession on non-oil imports -- are expected to produce a sharp positive swing in real net exports of goods and services this quarter; the third factor -- foreign payments for Desert Shield -- will reduce the current account deficit but not affect the GNP accounts.

Turning to the Census data on October merchandise trade that were released this morning, you have before you a table summarizing these data and the revised data for September. The downward revision to the September deficit to \$9.3 billion was small; it was largely in the form of increased non-agricultural exports. The nominal October deficit increased to \$11.6 billion. This was larger than we expected; a pronounced and larger-than-expected recovery in nonagricultural exports was more than offset by higher oil imports (essentially in line with our expectations)

and a very large, and surprising, increase in non-oil imports from the low level recorded in September.

December 18, 1990

FOMC Briefing  
Donald L. Kohn

The issues facing the Committee today include an assessment of the monetary policy actions that have been taken over recent months, and whether they have been sufficient to produce a satisfactory upswing in the economy next year, but one which does not endanger longer-run restraint on prices. In addition, with the federal funds rate having moved down close to the discount rate, the Committee and the Board need to consider how they would like to implement monetary policy, in terms of the mix of instruments used to produce a given degree of pressure in reserve markets-- that is, a given federal funds rate.

To help in gauging the possible effects of the drop in the federal funds rate over the last eight weeks, I thought it might be useful to review briefly the financial indicators in the chart package. Some of these indicators, especially those associated directly with the transmission of policy to the economy, suggest that an appreciable easing has occurred. Real short-term interest rates, chart 1, represented by the one-year Treasury yield deflated by a variety of inflation expectation measures, have fallen to about their lowest levels since 1980. In addition, the foreign exchange value of the dollar, shown in chart 2 in nominal and real terms, is around historical lows.

Indications from long-term securities markets seem to be consistent with expectations that this easing will cushion the downturn and produce renewed growth next year. Bond rates have decreased substantially

from their highs of a few months ago, but the yield curve, shown on chart 3, retains a distinct upward slope--and one steeper than earlier this year. The persistence of fairly high nominal long-term rates is reflected in real long-term rates as well, on charts 4 and 5. These are down from earlier, but still well within the range of recent years and it appears that the real, as well as the nominal yield curve, slopes upward. The levels of nominal and real long-term rates and their yield curve configurations may reflect uncertainty premiums in long-term markets in the face of Persian Gulf developments, rather than expectations about stronger economic activity or inflation ahead. A portion of the decline in real and nominal bond yields since the last FOMC likely mirrors some hope for easing of Persian Gulf tensions and the associated drop in oil prices. It seems unlikely that the remaining uncertainty premiums are worth the 1 to 2 percentage points bond yields would have to fall to produce yield curves that seemed to signal monetary stringency or expectations of a prolonged recession and easing of policy. Stock market prices, shown in the next chart, are off their August lows in a pattern more consistent with a coming trough in economic activity than a continued downtrend in activity.

Indeed, one might question whether the low levels of real short-term rates and the dollar aren't pointing to fairly robust growth down the road. However, there are a number of factors in the current economic environment that point to a need for lower real rates than in recent years to stimulate spending. These factors include: greater restrictions on credit supplies, reflected in stiffer nonprice terms and higher lender margins; the effects of softening real estate markets not only on construction activity but on spending more generally through wealth effects;

moderately restrictive fiscal policy; and gloomy business and consumer sentiment. Certainly, declining commodity prices, shown in the next chart, in addition to echoing substantial weakness in the industrial sector, do not suggest effective real rates to businesses that are low enough to induce stockpiling of commodities.

One financial indicator that seems most clearly to contradict the notion of a stimulative monetary policy is the money supply. A longer-run perspective on actual and projected money growth is given in the next chart, which shows movements in real M2 and M3. For real M2, we have not seen the kinds of declines most often associated with recession--and we are not predicting much of a pickup associated with the recovery. The unusually mild decline is consistent with a relatively shallow recession; it is also a result of the peculiarity of entering a downturn with interest rates falling. The projected sluggish behavior in the upturn is partly a reflection of relatively restrained growth in nominal income, but it also represents an assumption that money growth will continue to be damped and velocities elevated by the restructuring of financial flows.

It is this restructuring and its effects on money demand and supply as well as on income that have made the money data so difficult to interpret. From one perspective, credit supply constraints have affected both money and income--and in this regard slow money has been an indication that policy has been effectively tighter than might have been apparent from other indicators. But the weakness in money this year has not been entirely reflected in spending and income; we have also seen persistently higher velocities than would have been predicted from past

relation with interest rates and opportunity costs--that is, a shift in money demand.

The essentially flat pattern of M2 growth from September to December likely reflects not only further downward shifts in money demand but also the little estimated growth in nominal income. We are projecting a pickup in M2 beginning this month and extending through March under the unchanged money market rate assumptions of alternative B. The acceleration is largely a consequence of the appreciable drop in interest rates and opportunity costs over the last eight weeks; it also reflects the rebound in income, though these latter effects are damped by the continuing impact of low fourth-quarter income growth as the public smooths money holdings through the variations in nominal GNP growth. The pickup also is restrained by our assumption that financial asset demand will continue to shift away from M2 and that depositories will remain unenthusiastic issuers of retail deposits as they continue to hold down credit growth.

Naturally, we believe the M2 projection to be consistent with the greenbook forecast of a pickup in income next year and with the assumptions about credit conditions underlying that forecast. However, a significant and persistent shortfall from that M2 projection could, again, indicate weaker income and added constraints on credit flows. In these circumstances, the failure of M2 to accelerate appreciably might be a matter that the FOMC would want to give some weight to in determining possible action in reserve markets.

If the Committee saw the effects of the recent easing on interest and exchange rates as likely to produce a sufficient economic upturn next year, consistent with continuing restraint on inflation, alternative B

would be appropriate. However, if weak money growth--past and projected--together with the current downward trajectory of the economy were to be seen as representing an undue risk that a satisfactory rebound next year might not be forthcoming, the Committee might find a further reduction in the funds rate appropriate. In these circumstances, the Committee and the Board would have a number of choices for implementation, involving combinations of open market operations and discount rate changes. There is no hard and fast technical bar to using open market operations to reduce the funds rate to 7 or 6-3/4 percent, without any change in the discount rate. To be sure, the further decline in borrowing and the placement of the funds rate at or below the discount rate might imply a little added short-run variability in the federal funds rate. The increment to volatility should be small under current operating procedures in which Desk operations emphasize the federal funds rate as well as reserve availability. This situation contrasts to that of late 1979 to late 1987 when nonborrowed or borrowed reserves were the focus of operations. Under those operating regimes, reductions in borrowing to frictional or near frictional levels would have resulted in major increases in volatility.

A small increase in funds rate variation is not itself a major problem. If, however, market participants had greater difficulty separating the added noise in the rate from genuine signals about monetary policy, the Desk might be driven to key operations even more on the daily level of the federal funds rate. Pushing the federal funds rate to or below the discount rate also would risk some additional uncertainty in the market about the System's intentions, since it is widely believed that the

Federal Reserve would prefer not to operate with rates in this configuration, absent a fundamental reconsideration of the possible use of a penalty discount rate.

A cut in the discount rate of 1/2 point could also be used for a reduction of 1/4 or 1/2 point in the federal funds rate, while sidestepping these minor drawbacks. Over the last decade, changes in the discount rate generally have been allowed to show through to federal funds rates, most often by the full amount of the discount rate change. In some instances, especially under the borrowed reserve operating procedure, markets got ahead of the Federal Reserve so that discount rate changes were seen as catching up to very recent Fed funds rate movements, but for the most part the borrowing assumption was not changed to offset the effect of the discount rate. Hence, a decrease in the federal funds rate of 1/2 percentage point would be the most natural accompaniment to a similar sized decrease in the discount rate. However, a reduction of 1/4 in the federal funds rate also would be feasible and fairly readily conveyed to the market through open market operations and in the press release on the discount rate action. In this case borrowing could be raised initially by \$25 million to widen the spread between the funds rate and the discount rate by 1/4 percentage point to 1/2 point. This action would be seen as a realignment of the two rates against the background of the decrease in the funds rate of only ten days ago, and subsequent Board and FOMC discussions.

The announcement effect of a discount rate change would be muted to the extent the cut were seen as at least partly driven by technical considerations. Nonetheless, the dollar and market interest rates are

likely to react a bit more to a discount rate change, however couched, than to a comparable funds rate ease effected only through open market operations. The latter would be seen as another very cautious, measured step in the gradual reduction of short-term interest rates, without clear implications for future Federal Reserve actions. The discount rate change could be taken as a sign that the Federal Reserve did not expect the drop in rates to be quickly reversed, and would leave scope for a further ease through open market operations. The stronger message may be a desirable aspect of policy, if one objective of the policy action is to shore up deteriorating psychology.

If the Committee wishes to ease, while not prejudging a discount rate decision, the staff has supplied possible language for the directive. This wording, or something like it, would imply appropriate adjustments to the borrowing assumption or "pressures on reserve positions" under alternative discount rate contingencies to achieve the Committee's objectives. We followed past practice closely by suggesting the insertion of "taking account of a possible change in the discount rate". When this situation has arisen in the past, the policy record has been used to clarify the Committee's intentions and the views of the various members about the potential interactions of discount rates and open market operations.